

Application No: 10/822,146

Docket No.: 713-1122

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims :

1) (Currently amended) An electric gas lighter (~~1; 1a~~) for generating sparks at one or more burners of a cooking range, ~~[[and]]~~ comprising:

a transformer having a primary winding ~~[[4]]~~, and a secondary winding divided into a number of coils ~~[[8]]~~ and having a predetermined number of output terminals ~~[[3]]~~; the coils being wound on respectively axially adjacent portions of a substantially cylindrically symmetrical, tubular drum ~~[[10]]~~ forming part of a supporting member ~~[[6; 6a]]~~ made of electrically insulating material and formed in one piece with supports ~~[[12]]~~ projecting tangentially with respect to the drum and each supporting a respective said terminal ~~[[3]]~~; ~~characterized in that~~ wherein the coils ~~[[8]]~~ are connected electrically to one another in series to form ~~one~~ said secondary winding, which has been obtained by continuously winding without making cuts an insulated electrically conducting wire ~~[[20]]~~ onto the drum ~~[[10]]~~ to form said coils ~~[[8]]~~; the wire ~~[[20]]~~ being wound alternately onto the drum ~~[[10]]~~ in an opposite direction for each coil ~~[[8]]~~; and the winding direction of the wire being inverted upon the wire ~~[[20]]~~ engaging a respective common terminal ~~[[3]]~~ between two adjacent coils.

2) (Currently amended) A gas lighter ~~[[1; 1a]]~~ as claimed in Claim 1, ~~characterized in that~~ wherein each said terminal ~~[[3]]~~ is defined by a blade contact, ~~e.g. a faston type~~, for supplying ~~high~~ a voltage, in use, to a respective burner; the lighter secondary winding comprising a number (n) of coils ~~[[8]]~~ and a number (n+1) of terminals ~~[[3]]~~, where (n) is any integer greater than 2.

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3) (Currently amended): A gas lighter $[(1; 1a)]$ as claimed in claim 2, ~~characterized in that~~ wherein said drum $[(10)]$ has an odd number (m) of winding seats $[(11)]$, each for receiving ~~said wire (20) wound in a given direction to form~~ a respective said coil $[(8)]$, and a number (m+1) of said supports $[(12)]$ for the terminals ~~(3); in the case of a lighter for lighting an odd number of burners,~~ one of said seats and a respective adjacent support not being engaged by said wire.

4) (Currently amended): A gas lighter $[(1; 1a)]$ as claimed in claim 2, ~~characterized in that~~ wherein said tubular drum $[(10)]$ has a prismatic tubular member $[(22)]$ formed in one piece with each said support $[(12)]$ and for housing a said blade contact $[(3)]$ fitted to and defining an electric connector with the respective support $[(12)]$.

5) (Currently amended): A gas lighter $[(1; 1a)]$ as claimed in claim 4, ~~characterized by also~~ further comprising an outer casing $[(2; 2a)]$ made of electrically insulating material and housing said supporting member $[(6)]$, ~~[[with]]~~ wherein said wire is wound on the drum $[(10)]$ to form said coils $[(8)]$ on the outside of the drum, and ~~[[with]]~~ said primary winding $[(4)]$ is inserted coaxially inside said tubular drum; said casing $[(2; 2a)]$ having a number of openings $[(40)]$ through which said prismatic tubular members $[(22)]$ formed in one piece with the supports $[(12)]$ of the terminals $[(3)]$ are inserted, so that a subunit, defined by the ~~[[two]]~~, primary and secondary, windings with the respective supporting member $[(6; 6a)]$ and terminals $[(3)]$, can be preassembled and then fitted ~~automatically~~ inside the casing $[(2; 2a)]$.

6) (Currently amended): A gas lighter $[(1; 1a)]$ as claimed in claim 5, ~~characterized in that~~ wherein said casing $[(2; 2a)]$ and said supporting member $[(6; 6a)]$, with the respective tubular drum $[(10)]$, respective supports $[(12)]$, and respective prismatic tubular members $[(22)]$ for housing the terminals $[(3)]$, are molded from synthetic plastic material, ~~preferably a polyamide~~.

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7) (Currently amended): A gas lighter ~~[[1; 1a]]~~ as claimed in claim 1, ~~characterized in that~~ wherein, on the outside, at each said coil ~~[[8]]~~, said tubular drum ~~[[10]]~~ is formed in one piece with a number of semiannular partitions ~~[[41]]~~ for dividing each coil ~~[[8]]~~ into a number of electrically separate sections.

8) (Currently amended): A gas lighter ~~[[1]]~~ as claimed in claim 4, ~~characterized in that~~ wherein said terminals ~~[[3]]~~, with the relative supports ~~[[12]]~~ and prismatic tubular housing members ~~[[22]]~~, are located alternately, in an axial direction, on opposite sides of said casing ~~[[2]]~~.

9) (Currently amended): A gas lighter ~~[[1a]]~~ as claimed in claim 4, ~~characterized in that~~ wherein said terminals ~~[[3]]~~ are all located side by side along a same first side ~~[[200]]~~ of said casing ~~[[2a]]~~; said terminals ~~[[3]]~~ being carried by respective supports (12), which are formed in one piece with said drum ~~[[10]]~~ of the insulating said supporting member ~~[[6a]]~~, project tangentially with respect to the drum ~~[[10]]~~, and are all arranged side by side along a same side ~~[[600]]~~ of the drum ~~[[10]]~~.

10) (Currently amended): A gas lighter ~~[[1a]]~~ as claimed in claim 9, ~~characterized in that~~ wherein said first side ~~[[200]]~~ of the casing ~~[[2a]]~~, on which the terminals ~~[[3]]~~ are all arranged side by side, is selected so as to be opposite a second side ~~[[201]]~~ of the casing ~~[[2a]]~~ located on the same side as a fastening ~~means~~ element ~~[[300]]~~ integral with the casing ~~[[2a]]~~ and for clicking the casing ~~[[2a]]~~ onto an electrically conducting support ~~[[C]]~~ of an electric household appliance.

11) (Currently amended): A method of producing a gas lighter with any number of output terminals, ~~[[and]]~~ comprising the steps of:

(a) molding from synthetic plastic material a supporting member ~~[[6]]~~ comprising a tubular drum ~~[[10]]~~ and a number of supports ~~[[12]]~~ for respective electric terminals ~~[[3]]~~;

(b) assembling a predetermined number of terminals to the supports, ~~possibly leaving one support with no terminal;~~

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(c) assembling the supporting member $[(6)]$, by means of said tubular drum, to a rotary spindle $[(50)]$;

(d) securing an insulated electrically conducting wire $[(20)]$ to a first terminal $[(3)]$ at a first end of the supporting member, and winding said wire onto the tubular drum $[(10)]$ to form a first coil $[(8)]$ by rotating the spindle in a given first direction;

(e) stopping the spindle $[(50)]$, securing the wire ~~without cutting it~~, to a second terminal $[(3)]$ adjacent to the coil just formed, and winding said wire onto the tubular drum to form a second coil $[(8)]$, axially adjacent to the first coil, by rotating the spindle in a given second direction opposite the first direction;

(f) repeating step (e) n times to form on the tubular drum ~~a given number of~~ coils $[(8)]$ all connected electrically in series to one another, and with the terminals interposed between ~~common~~ adjacent coils;

(g) assembling inside the tubular drum a core $[(5)]$ made of ferrite and having an electric winding $[(4)]$, to form an assembly constituting a transformer; and

(h) fitting said assembly inside a casing $[(2)]$, so that said terminals pass through and project from the casing.

12) (New) A gas lighter as claimed in claim 1, wherein said coils are n in number and the relationship between said coils and said terminals is $n:(n+1)$, where n is any integer greater than 2.

13) (New) An electric gas lighter, comprising:
a transformer including:
a primary winding;

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a secondary winding, wherein the secondary winding is divided into a number of coils; and

a predetermined number of output terminals;

wherein the coils are wound on axially adjacent portions of a tubular drum forming part of a supporting member made of electrically insulating material and including supports projecting ~~tangentially with respect to~~ from the drum and each supporting a respective said terminal; wherein the coils are electrically connected to one another in series to form ~~one~~ said secondary winding, the secondary winding comprising an electrically conducting wire continuously wound onto the drum, wherein the wire is wound alternately around the drum in an opposite direction for each coil and the winding direction of the wire is inverted upon the wire engaging a respective common terminal between two adjacent coils.

14) (New) A method as claimed in claim 11, wherein step (b) includes leaving one support with no terminal.

15) (New) A method as claimed in claim 11, wherein step (e) is performed without cutting the wire.